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EXAMINER

POGMORE, TRAVIS D

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,681	Applicant(s) NAKANO ET AL.	
	Examiner Travis Pogmore	Art Unit 4148	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01 February 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The instant application having Application No. 10/566681 filed on February 1, 2006 is presented for examination by the examiner.

Oath/Declaration

2. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in 37 C.F.R. 1.63.

Priority

3. As required by M.P.E.P. 201.14(c), acknowledgement is made of applicant's claim for priority based on applications filed on December 15, 2003.
4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

5. As required by M.P.E.P. 609, the applicant's submissions of the Information Disclosure Statement dated February 1, 2006 is acknowledged by the examiner and the cited references have been considered in the examination of the claims now pending.

Drawings

6. Figures 12 and 13 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. As referenced in the specification (page 2, lines 13-14 and page 3, lines 15-16) the figures only disclose conventional methods and

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they are identical to figures in the prior art cited in the specification (as recited above).

See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections – 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claim 50 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claim recites "a predetermined time" which lacks antecedent basis in the specification. This leaves it ambiguous as to how a predetermined time is actually set for the power supply unit which would prevent a person of ordinary skill in the art from making and using the invention as claimed.

9. Claims 42, 44, 46, and 48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject

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matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The claims recite a “function type” which is not clearly defined in the specification, and thus the scope of the claims is not ascertainable by reference to the specification.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 50 is rejected under 35 U.S.C. 112, second paragraph, as being vague and indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recited phrase “a predetermined time” when read in light of the specification would not be understandable to one of ordinary skill in the art because there is no particular and distinct definition of this phrase and so it is unclear what limitations are part of the claimed invention.

Claim Rejections – 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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13. Claims 28-31, 33-34, 38-40, and 55-57 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,847,719 (hereinafter "Ballard").

As to claim 28, Ballard teaches a secret information setting device for generating secret information and setting secret information in a plurality of appliances (Fig. 1 and column 2, lines 48-62, where the plurality of computers is the plurality of appliances) in a system using shared secret information that allows the appliances to communicate over a network (Fig. 3, the secret information setting device being comprised of the "Key Management Module" and the "Receiver Module" operating on an appliance (as per column 4, lines 5-7)), the secret information setting device comprising:

a generation instruction receiving unit that receives a secret information generation instruction from a user (Fig. 3 and column 4, lines 24-35, the "Send Configuration Module" of Fig. 3 being controlled by a user);

a secret information generation unit that generates the secret information in response to the secret information generation instruction received with the generation instruction receiving unit (column 5, lines 5-11);

a secret information storage unit that stores the secret information generated by the secret information generation unit (column 4, lines 31-35); and

a secret information transfer unit that transfers the secret information stored in the secret information storage unit to the plurality of appliances (column 4, lines 52-54 and column 1 line 61 to column 2, line 3, the encryption key (i.e. the secret information)

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is also the decryption key so it is the data transferred from the key management module (i.e. secret information storage unit) and the receiver module (i.e. appliance)); and

a secret information deleting unit that deletes the secret information stored in the secret information storage unit when a predetermined condition is satisfied (column 2, lines 23-28 and column 5, line 49 to column 6, line 4, in particular the top of page 6 refers to the key management module destroying (i.e. deleting) decryption keys that are no longer permitted to be accessed by the receiver).

As to claim 29, Ballard teaches wherein the secret information generation unit generates the secret information based on internal information managed inside the device (column 5, lines 16-20, the message identification code generated by the key management module being generated based on information inside of the device).

As to claim 30, Ballard teaches further comprising:

an external information receiving unit that receives external information that is externally input in order to generate the secret information (column 3, lines 53-57 and column 4, lines 24-31, where the external information receiving unit is the keyboard, pointing/clicking device etc. and the sender is the user and thus external to the device);

wherein the secret information generation unit generates the secret information based on the external information received by the external information receiving unit (column 4, lines 43-50).

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As to claim 31, Ballard teaches wherein the external information receiving unit is an input device, such as a keyboard or a pointing device for data input (column 3, lines 53-57).

As to claim 33, Ballard teaches wherein the secret information generation unit takes the external information received with the external information receiving unit as said secret information (column 4, lines 50-54, where the sender is the user (and thus external to the device) who generates the key which is used as the decryption key).

As to claim 34, Ballard teaches wherein the secret information generation unit generates the secret information by arithmetically processing the external information received with the external information receiving unit (column 4, lines 43-50, when interpreted under the broadest reasonable interpretation by one skilled in the art “arithmetic... processing” comprises numerical computation and number theory which are inherent in the generation of cryptographic keys (i.e. secret information)).

As to claim 38, Ballard teaches further comprising:

a clock unit that measures the time that has elapsed after a predetermined time and outputs this clock information (column 5, lines 52-55, it is inherent that the computer hosting the key management module have a clock); and

a time limit judgment unit that determines the integrity of the secret information stored in the secret information storage unit by comparing the clock information that is

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output from the clock unit with judgment reference information (column 5, lines 49-55 and line 67 to column 6, line 4, where the expiration date and time is the judgment reference information);

wherein the secret information deleting unit deletes the secret information stored in the secret information storage unit based on a determination of the time limit judgment unit (column 5, lines 52-61 and line 67 to column 6, line 4).

As to claim 55, Ballard teaches a secret information setting method for generating secret information and setting secret information in a plurality of appliances in a system using shared secret information that allows the appliances to communicate over a network (Fig. 3 and Fig. 4, the secret information setting device being comprised of the “Key Management Module” in Fig. 3 and the “Receiver Module” being an appliance), the secret information setting method comprising the steps of:

receiving a secret information generation instruction from a user (Fig. 3 and column 4, lines 24-35, the “Send Configuration Module” of Fig. 3 being controlled by a user);

generating the secret information in response to the received secret information generation instruction (column 5, lines 5-11);

storing generated secret information in a secret information storage unit (column 4, lines 31-35);

transferring the secret information stored in the secret information storage unit to the plurality of appliances (column 4, lines 52-54 and column 1 line 61 to column 2, line

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3, the encryption key (i.e. the secret information) is also the decryption key so it is the data transferred from the key management module (i.e. secret information storage unit) and the receiver module (i.e. appliance)); and

deleting the secret information stored in the secret information storage unit when a predetermined condition is satisfied (column 2, lines 23-28 and column 5, line 49 to column 6, line 4, in particular the top of page 6 refers to the key management module destroying (i.e. deleting) decryption keys that are no longer permitted to be accessed by the receiver).

As to claim 56, Ballard teaches a program (column 3, line 66 to column 4, line 3, in particular a “software module” is a program) for a secret information setting method for generating secret information and setting secret information in a plurality of appliances in a system using shared secret information that allows the appliances to communicate over a network, the program performing on a computer a secret information setting method comprising the steps of: (Fig. 3 and Fig. 4, the secret information setting device being comprised of the “Key Management Module” in Fig. 3 and the “Receiver Module” being an appliance), the secret information setting method comprising the steps of:

receiving a secret information generation instruction from a user (Fig. 3 and column 4, lines 24-35, the “Send Configuration Module” of Fig. 3 being controlled by a user);

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generating the secret information in response to the received secret information generation instruction (column 5, lines 5-11);

storing generated secret information in a secret information storage unit (column 4, lines 31-35);

transferring the secret information stored in the secret information storage unit to the plurality of appliances (column 4, lines 52-54 and column 1 line 61 to column 2, line 3, the encryption key (i.e. the secret information) is also the decryption key so it is the data transferred from the key management module (i.e. secret information storage unit) and the receiver module (i.e. appliance)); and

deleting the secret information stored in the secret information storage unit when a predetermined condition is satisfied (column 2, lines 23-28 and column 5, line 49 to column 6, line 4, in particular the top of page 6 refers to the key management module destroying (i.e. deleting) decryption keys that are no longer permitted to be accessed by the receiver).

As to claim 57, Ballard teaches a computer-readable recording medium storing a program (column 3, line 66 to column 4, line 9, in particular it is inherent for software being hosted by a computer that the software be stored in the hard-disk or RAM of said computer) for a secret information setting method for generating secret information and setting secret information in a plurality of appliances in a system using shared secret information that allows those appliances to communicate over a network, (Fig. 3 and Fig. 4, the secret information setting device being comprised of the “Key Management

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Module” in Fig. 3 and the “Receiver Module” being an appliance), the secret information setting method comprising the steps of:

receiving a secret information generation instruction from a user (Fig. 3 and column 4, lines 24-35, the “Send Configuration Module” of Fig. 3 being controlled by a user);

generating the secret information in response to the received secret information generation instruction (column 5, lines 5-11);

storing generated secret information in a secret information storage unit (column 4, lines 31-35);

transferring the secret information stored in the secret information storage unit to the plurality of appliances (column 4, lines 52-54 and column 1 line 61 to column 2, line 3, the encryption key (i.e. the secret information) is also the decryption key so it is the data transferred from the key management module (i.e. secret information storage unit) and the receiver module (i.e. appliance)); and

deleting the secret information stored in the secret information storage unit when a predetermined condition is satisfied (column 2, lines 23-28 and column 5, line 49 to column 6, line 4, in particular the top of page 6 refers to the key management module destroying (i.e. deleting) decryption keys that are no longer permitted to be accessed by the receiver).

Claim Rejections – 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 32 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballard in view of U.S. Patent Application Pub. No. US 2003/0074566 A1 (hereinafter "Hypponen").

As to claim 32, Ballard teaches the secret information setting device according to claim 30, but does not specifically teach wherein the external information receiving unit is an image input device into which captured image information is input as the external information.

However Hypponen teaches wherein the external information receiving unit is an image input device into which captured image information is input as the external information (page 2, column 1, paragraphs 10 and 12, specifically the graphical representations and retina scan recognition involve captured image information).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Ballard to allow the external input to be captured image information as in Hypponen because this allows a wider range of key inputs than just textual (Hypponen, page 2, column 1, paragraph 10).

As to claim 50, Ballard teaches the secret information setting device according to claim 28,

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further comprising a power supply unit that supplies power for a predetermined time to the secret information storage unit (column 3, lines 40-43, the secret information device being comprised of software that runs on a computer, and it is inherent that a computer use a power supply, e.g. a battery); but does not specifically teach wherein the secret information storage unit stores the secret information only as long as power is supplied to it from the power supply unit.

However Hypponen teaches wherein the secret information storage unit stores the secret information only as long as power is supplied to it from the power supply unit (page 1, column 2, paragraphs 5 and 6, where the passphrase is the secret information).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Ballard to only retain the secret information while the storage unit has power as in Hypponen because this increases the security of the secret information.

16. Claims 35-37 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballard in view of U.S. Patent No. 6,385,655 (hereinafter "Smith et al.").

As to claim 35, Ballard teaches the secret information setting device according to claim 28, but does not specifically teach wherein the secret information storage unit further stores the number of times that the secret information has been transferred to the outside; or

wherein the secret information transfer unit transfers the secret information to a number of appliances corresponding to the number of transfer times stored in the secret information storage unit.

However, Smith et al. does teach wherein the secret information storage unit further stores the number of times that the secret information has been transferred to the outside (column 19, lines 1-5, the total number of recipients being the number of times the secret information has been transferred, it is inherent that to be able to store the total number of recipients that this information must be stored); and

wherein the secret information transfer unit transfers the secret information to a number of appliances corresponding to the number of transfer times stored in the secret information storage unit (column 5, lines 22-26 and 56-61, in particular a set of recipient addresses (i.e. a number) and an Internet access appliance being an appliance and the recipient of the above referenced document).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Ballard to record the number of transfers as in Smith et al. because this allows greater accountability and control of the secret information.

As to claim 36, Ballard teaches further comprising: a transfer time setting unit for setting the number of transfer times that the secret information is transferred to the outside; wherein the secret information storage unit stores the number of transfers set

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by the transfer time setting unit (column 2, lines 23-24 and column 5, lines 55-60, the number of views being the number of transfers).

As to claim 37, Ballard teaches wherein the secret information deleting unit deletes (column 2, lines 23-28 and column 5, line 49 to column 6, line 4, in particular the top of page 6 refers to the key management module destroying (i.e. deleting) decryption keys that are no longer permitted to be accessed by the receiver) the secret information stored in the secret information storage unit, if the secret information transfer unit has transferred the secret information to a number of appliances corresponding to the number of transfers stored in the secret information storage unit (column 5, lines 55-60).

As to claim 49, Ballard teaches the secret information setting device according to claim 28, but does not specifically teach wherein: the secret information storage unit stores the number of appliances to which the secret information has been transferred by the secret information transfer unit; or

the secret information setting device further comprises a transfer number display unit that displays the number of appliances stored in the secret information storage unit.

However, Smith et al. does teach wherein: the secret information storage unit stores the number of appliances to which the secret information has been transferred by the secret information transfer unit (column 5, lines 22-26 and 56-61, in particular a set of recipient addresses (i.e. a number) and an Internet access appliance being an appliance and the recipient of the above referenced document); and

the secret information setting device further comprises a transfer number display unit that displays the number of appliances stored in the secret information storage unit (column 19, lines 1-5, the total number of recipients being the number of times the secret information has been transferred where the invoice report is the transfer number display unit).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Ballard to record and display the number of transfers as in Smith et al. because this allows greater accountability and control of the secret information.

17. Claims 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballard in view of U.S. Patent No. 5,915,025 (hereinafter "Taguchi et al.").

As to claim 39, Ballard teaches the secret information setting device according to claim 38, but does not specifically teach wherein the clock unit measures the time that has elapsed from the time when the secret information generation unit has generated the secret information.

However, Taguchi et al. does teach wherein the clock unit measures the time that has elapsed from the time when the secret information generation unit has generated the secret information (column 14, lines 39-65, where the elapsed time column (i.e clock unit) measures the elapsed time from when the key (i.e. secret

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information) was last updated (i.e. generated) and comprises the judgment reference information).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Ballard to measure time elapsed from the generation of the secret information as in Taguchi et al. because this gives the key a limited lifetime and thus decreases the chance of the key being compromised.

As to claim 40, Ballard teaches the secret information setting device according to claim 38, but does not specifically teach wherein the clock unit measures the time that has elapsed from the time when the secret information transfer unit has first transferred the secret information.

However, Taguchi et al. teaches wherein the clock unit measures the time that has elapsed from the time when the secret information transfer unit has first transferred the secret information (column 14, lines 39-57, where the elapsed time column (i.e clock unit) measures the elapsed time from when the key (i.e. secret information) started to be used (i.e. first transferred), and comprises the judgment reference information).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Ballard to measure time elapsed from the first transfer of the secret information as in Taguchi et al. because this gives the key a limited lifetime and thus decreases the chance of the key being compromised.

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18. Claims 41-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballard in view of U.S. Patent No. 5,903,226 (hereinafter "Suman et al.").

As to claim 41, Ballard teaches the secret information setting device according to claim 40, but does not specifically teach wherein the time limit judgment unit determines an appliance type to which the secret information transfer unit transfers the secret information, and sets the judgment reference information based on that appliance type.

However Suman et al. does teach wherein the time limit judgment unit determines an appliance type (column 5, lines 48-52, the garage door and light control being of different appliance types) to which the secret information transfer unit transfers the secret information, and sets the judgment reference information based on that appliance type (column 2, lines 57-64, the time the lights will be on being judgment reference information).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Ballard to determine appliance type and adjust the configuration correspondingly as in Suman et al. because this allows for a finer level of discrimination and thus more control of the secret information.

As to claim 42, Ballard teaches the secret information setting device according to claim 40, but does not specifically teach wherein the time limit judgment unit determines a function type that is carried out using the secret information, and sets the judgment reference information based on that function type.

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However Suman et al. does teach wherein the time limit judgment unit determines a function type (column 5, lines 48-52, the garage door and light control being of different appliance types) that is carried out using the secret information, and sets the judgment reference information based on that function type (column 2, lines 57-64, the time the lights will be on being judgment reference information).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Ballard to determine function type and adjust the configuration correspondingly as in Suman et al. because this allows for a finer level of discrimination and thus more control of the secret information.

As to claim 43, Suman et al. teaches further comprising:

a type value receiving unit receiving input of a type value representing the appliance type (column 5, lines 48-52, the garage door and light control being different appliance types);

wherein the time limit judgment unit sets the judgment reference information based on the type value received with the type value receiving unit (column 2, lines 57-64, the time the lights will be on being the judgment reference information).

As to claim 44, Suman et al. teaches further comprising:

a type value receiving unit receiving input of a type value representing the function type (column 5, lines 48-52, opening the garage door and turning on and off the light being different function types);

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wherein the time limit judgment unit sets the judgment reference information based on the type value received with the type value receiving unit. (column 2, lines 57-64, the time the lights will be on being the judgment reference information).

As to claim 45, Suman et al. teaches wherein the judgment reference information is an upper time limit based on that type value (column 2, lines 57-64, the time the lights will be on being the judgment reference information).

As to claim 46, Suman et al. teaches wherein the judgment reference information is an upper time limit based on that type value (column 2, lines 57-64, the time the lights will be on being the judgment reference information).

As to claim 47, Suman et al. teaches further comprising:

an extension instruction receiving unit that receives an instruction to extend the upper time limit (column 7, lines 61-66, the specific manner of turning the lights on manually being the extension instruction receiving unit);

wherein the time limit judgment unit changes the judgment reference information in response to an extension instruction received with the extension instruction receiving unit. (column 7, line 61 to column 8, line 1, turning the lights on manually before the timer times out being the extension instruction serving to adjust the judgment reference information).

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As to claim 48, Suman et al. teaches further comprising:

an extension instruction receiving unit that receives an instruction to extend the upper time limit (column 7, lines 61-66, the specific manner of turning the lights on manually being the extension instruction receiving unit);

wherein the time limit judgment unit changes the judgment reference information in response to an extension instruction received with the extension instruction receiving unit. (column 7, line 61 to column 8, line 1, turning the lights on manually before the timer times out being the extension instruction serving to adjust the judgment reference information).

19. Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballard in view of U.S. Patent Application Pub. No. US 2003/0044018 A1 (hereinafter "Tomlinson").

As to claim 51, Ballard teaches a communication system using shared secret information to allow a plurality of appliances to communicate over a network, the communication system comprising:

a secret information setting device according to claim 28, but does not specifically teach the device not connected to the network; wherein the secret information setting device generates the secret information, and sets the secret information in the plurality of appliances without using the network.

However Tomlinson teaches the device not connected to the network; wherein the secret information setting device generates the secret information, and sets the secret information in the plurality of appliances without using the network (page 2, column 2, paragraphs 27-28 and 41, specifically a dockable unit which physically connects with the computer (i.e. an appliance) via USB is not using the network).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Ballard to distribute the secret information without using the network as in Tomlinson because this enhances security by eliminating a possible avenue of compromising the secret information.

As to claim 52, Tomlinson teaches wherein the secret information setting device is a portable device (page 2, column 2, paragraph 28).

20. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ballard in view of Tomlinson in further view of Hypponen.

Ballard and Tomlinson teach the communication system according to claim 51, but do not specifically teach wherein the secret information setting device is a mobile phone terminal.

However, Hypponen does teach wherein the secret information setting device is a mobile phone terminal (page 2, column 2, paragraph 26).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Ballard and Tomlinson to use a phone as

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in Hypponen because this allows a relatively common device (i.e. a phone) to be used to increase the security of a home network (i.e. the appliances).

21. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ballard in view of Tomlinson in further view of Suman et al.

Ballard and Tomlinson teach the communication system according to claim 51, but do not specifically teach wherein the secret information setting device is a remote control for a home appliance.

However, Suman et al. does teach wherein the secret information setting device is a remote control for a home appliance (column 1, lines 24-40, the remote control being capable of controlling a garage door, lights and other household appliances).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Ballard and Tomlinson to use a remote control as in Suman et al. because this allows a relatively common device (i.e. a remote control) to be used to increase the security of a home network (i.e. the appliances).

Conclusion

22. The following prior art made of record and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See MPEP 707.05(c).

U.S. Patent No. 4,187,401 (Matsumoto)

U.S. Patent No. 5,825,876 (Peterson, Jr.)

U.S. Patent No. 5,892,900 (Ginter et al.)

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U.S. Patent No. 5,943,422 (Van Wie et al.)

Japanese Patent Application Pub. No. JP 2005136870 A (Aihara)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRAVIS POGMORE whose telephone number is (571)270-7313. The examiner can normally be reached on Monday through Thursday between 7:30 a.m. and 5:00 p.m. eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Pham can be reached on 571-272-3689. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner, Art Unit 4148

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